The Treatment of Face Presentation

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THE TREATMENT OF FACE PRESENTATION.[1]

FACE presentations are frequently caused by some one of the other mechanical complications of labor, such, for instance, as flat pelves, or small fibroids in the lower uterine segment; or may themselves be complicated by one or more of the accidents of labor, such as prolapsed funis, hemorrhage, or eclampsia. But the treatment of such cases should be primarily determined by the nature of the complication rather than by the abnormal presentation; and as the subject by itself is quite sufficiently long and its details quite sufficiently intricate for the scope of a single paper, I propose to limit myself to the treatment of face presentation pure and simple, and the opinions I express must be interpreted as applying to uncomplicated cases only. So, too, I am addressing a paper to a society of experts, and I wish to state at the start that the position I shall take is that which I think will yield the best results to men whose previous experience warrants a well-grounded belief in their operative skill; and my position is, therefore, not open to criticism on the ground that it might be dangerous in the hands of the inexpert. For the same reasons I shall omit all matters of technique, believing that such details would be only a waste of time for this Society. Even when so simplified the subject is complicated enough to make a clear presentation of its details, in the several varieties of face labor, far from easy; but I think that the most satisfactory method will be to discuss the treatment of face presentation chronologically—*i.e.*, to take up the progress of face labor by stages, and to discuss the problems of treatment in the order in which they would come up in the course of a case.

FIRST STAGE: WITH UNRUPTURED MEMBRANES.—At the very beginning of labor, with the membranes still unruptured and the presenting part unengaged, the temporary occurrence of a face

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presentation is not extremely rare, but, under favorable circumstances, the vertex is spontaneously re-established, in a large proportion of such cases, by the occurrence of a spontaneous flexion. This phenomenon is due sometimes to the contraction of the flexor muscles of the fetal neck, sometimes to changes in the woman's posture and corresponding alterations in the fetal axis, and sometimes to changes of pressure due to irregular contractions of the lower uterine segment. It is manifest that this possibility ceases when the face is once thoroughly engaged or when the waters have drained away.

Treatment.—If, then, a face presentation is detected while the conditions still render a spontaneous re-establishment of flexion possible, everything should be done to promote this most favorable result; further vaginal examinations should be absolutely interdicted, on account of the great importance of preserving the membranes, and the obstetrician should confine himself to a policy of watchful inaction, or should, at most, content himself with the adoption of postural treatment and attempts at furthering flexion by gentle external manipulations.

The patient should first be laid upon the side to which the abdomen of the child is directed, in the hope that, as the breech drops to that side under the influence of gravity, the relations between the axis of the child and the condyles of the occiput may be so changed as to permit the uterine pains to re-establish flexion. If this fails the woman should be placed in the knee-chest position, that the presenting part may fall away from the pelvis, and should maintain this position for the longest time possible, in the hope that flexion may occur under the action of the fetal muscles. When this expedient is unsuccessful, flexion of the head by external manipulations after the method of Schatz should be given a fair trial.

If the vertex becomes re-established either by the efforts of Nature or by one of these minor artificial procedures, the membranes should be ruptured, the head should be crowded into the brim by pressure from above and held there till a firm engagement of the vertex has occurred.

If these measures fail the greatest care must still be exercised to preserve the integrity of the membranes; for that the os should be raised to full dilatation, or at least to a condition of dilatability, by their activity is to be desired, not only because

this result offers perhaps the only chance for a successful termination of labor by the efforts of Nature, but because even a partial completion of the dilatation by the pressure of the membranes is often sufficient to render the artificial completion of the process a safe and easy instead of a difficult and somewhat dangerous matter. So long as the membranes persist the care of the first stage should be left to Nature; we have left for consideration, then, only the treatment of early rupture of the membranes and of the second stage.

First Stage: Early Rupture of the Membranes.—Dry face labor is not only extremely unlikely to terminate naturally, but, in the small proportion of cases in which Nature is efficient, the fetus is exposed to great danger from the pressure which the dilating cervix necessarily exerts against the great vessels of its neck—a danger which is increased by the fact that the size of the small and tapering face is insufficient to effect the complete dilatation of the os, and that the neck must therefore enter into the cervix before it reaches its greatest size. If, then, the membranes rupture while the os is still small and rigid, the prognosis for the child under the care of Nature is so very unfavorable that, in my opinion, the expectant policy should be abandoned and some form of operative treatment should be resorted to at once.

Treatment of Early Rupture of the Membranes.—Two general plans of action are applicable to these cases. The face presentation may be changed into a presentation of the breech by some one of the minor forms of version, after which the case may usually be left to Nature; or the os may be manually dilated and the hand passed into the uterus, with the intention of either restoring the vertex by a manual flexion of the head or of performing an internal podalic version. The choice between these two plans must depend, primarily, upon the size and condition of the os at the time when the membranes rupture.

When the os is but little dilated and the cervix is but little, if at all, shortened, or if the cervix, though partly dilated, is still so rigid as to promise real difficulty in its manual dilatation, the production of a breech presentation by external or bipolar version is a very safe procedure for the mother, and will usually be easy if the attempt can be made immediately after the escape of the liquor amnii and, if necessary, under anesthesia; or, if these attempts fail, a bipolar podalic version can always be per-

formed, under anesthesia and in uncomplicated cases, if the os is large enough to permit the extraction of the foot—*i.e.*, when it admits easily the two fingers which are necessary to the performance of the operation.

As the production of a pelvic presentation by one or the other of these methods is so safe for the mother, their adoption as a routine measure would be the best treatment for all cases of early rupture of the membranes in face presentations, were it not that experience has shown that even external version has a certain intrinsic fetal mortality, which is probably due to compression or tension of the cord, and that to this must be added the not inconsiderable fetal mortality incidental to breech labor. This combined fetal mortality is, indeed, likely to be less than that of dry face labor, but is still so considerable that I think that this form of treatment should be reserved for cases in which the membranes rupture before the beginning of labor, and for the few cases in which the rigidity of the cervix is so great that a manual dilatation is likely to involve a risk to the mother which is sufficient to offset the chance of a restoration of the vertex which may be gained by a dilatation of the os to a degree sufficient to permit the intrauterine use of the hand. Extreme rigidity is, in my opinion, necessary for the production of this degree of danger, and the field for the minor forms of version is therefore, for me, somewhat limited.

It is probable that some operators would prefer to use external or bipolar version and immediate extraction in all cases in which version is not unlikely to be ultimately necessary, but my own somewhat extensive experience with it leads me to believe that both laceration of the cervix and stillbirth are somewhat more frequent when these methods of version are used than even after a complete manual dilatation and an internal version.

I therefore prefer to treat such cases by a manual dilatation; and as this operation never raises the os to a size which is sufficient to relieve the neck from pressure during the descent of the face, I think that manually dilated cases should never be left to Nature, but that they should always be immediately subjected to the appropriate operative after-treatment of which I am shortly to speak under the head of the treatment of the second stage. The expedients of external or bipolar version are, however, in rare cases of great value, and the possibility of their performance should not be forgotten.

Treatment of the Second Stage.—When the membranes have persisted till the os is almost or wholly dilated, or when a manual dilatation has been done, the subsequent treatment should be influenced mainly by the position of the chin; and for the sake of clearness I propose to discuss the treatment of mento-anterior and posterior positions separately and as if they were separate abnormalities.

Mento-anterior Positions.—It is well known that a not small proportion of face cases terminate rapidly and easily, and that in favorable cases the prognosis of face labor is but little if at all worse than that of normal labor, and it is of the first importance to be able to detect in advance the conditions which determine these favorable results. I think that upon observation it will be found that in all these cases the os has been fully dilated by the membranes and that the chin is anterior, or that, at all events, a posterior position is so rare that the possibility of the occurrence of a rapid and easy labor in mento-posterior positions may fairly be omitted in a formal discussion of the subject. I think, too, that it will be found that such favorable results are further limited to that class of anterior positions in which the adaptation between the child and the pelvis is so easy that no considerable degree of moulding of the head is necessary to the passage of the brim, and that when much moulding is necessary the results will be, as a rule, unfavorable to the child.

The unfavorable influence of even moderately tight adaptation in face labor is easily explainable, not only because the delay incidental to the moulding process necessarily exposes the child to increased danger of disturbance of its circulation from pressure on its neck, but because, in face labor, the moulding processes are directed against that part of the brain which is least able to withstand pressure, so that when moulding is necessary the vitality of the child is likely to be compromised early in a large proportion of the cases.

Treatment of Anterior Positions.—If these observations are accepted as correct, it follows that when the chin is anterior and the dilatation has been spontaneously accomplished by the membranes, the obstetrician should content himself for the time with a careful observation of the processes of Nature. If the head makes steady progress through the superior strait, there is then every probability of an easy and rapid delivery; but even when the head descends steadily and rapidly the fetal heart should be

watched with the utmost jealousy, on account of the danger of compression of the vessels of the neck which exists throughout the whole of the second stage of face labor, and in the event of any irregularity of the fetal circulation the expectant policy should be at once abandoned.

When the face has once passed the superior strait, in an anterior position, its progress is ordinarily rapid and the difficulties of the case are greatly lessened, since, if interference becomes necessary, the application of forceps to an anterior position of the face within the pelvic cavity is always a safe and easy operation.

When the passage of the superior strait is not rapid I believe it may be taken for granted that if the child is to be saved it must be saved by an operation in at least a majority of the cases, and I think that it is, in the long run, better to adopt a policy of interference as soon as there is any arrest of progress, and without waiting for a failure of the fetal heart, in all these cases. This position is to be defended not only on the ground of the well-known advantages of operating while both patients are in good condition, but also because in face labor the moulding of the head which is intended to render the passage of the face easier makes all the preferable operative procedures more difficult and dangerous, and is favorable only to the very dangerous operation of the high application of forceps to the face as such.

When an anterior position of the chin is to be delivered by operative means, the expedients at our disposal are the application of forceps to the face as such, internal podalic version, and the restoration of flexion by the hand. Of these the last named is for me the operation of choice.

The application of forceps to the face (high) is so difficult, and so dangerous to the child, that it should always be reserved for a last resource. If version is to be performed it should always be preceded by a manual flexion of the head, when this is possible, because the projection of the occiput which is incidental to the attitude of the child in face presentation not only renders the version more difficult, but exposes the uterus to an unnecessary degree of danger. We have left, then, for consideration in uncomplicated anterior positions of the chin, only the operation of manual flexion, at all events as a primary resource.

As a preliminary to this or any intrauterine operative treatment of the face, the half-hand should be introduced into the uterus and made to palpate thoroughly the pelvic brim, the walls of the lower uterine segment, and the presenting part, in the search for any mechanical complication other than the face presentation. If such is found the choice of operation must be determined by its nature.

If the case is uncomplicated the head should be flexed by the hand, and the vertex will then lie in an occipito-posterior position. The case may then be treated in any one of four ways: its further progress may be left to Nature; forceps may be applied to the posterior occiput; the occiput may be rotated to the front and left to Nature, or treated by forceps; or, finally, version may be at once performed.

The discussion of the appropriate operative treatment of occipito-posterior cases is certainly not germane to the subject of this paper, and I do not propose to enter into it, except in so far as it is modified by the fact that the occipito-posterior position in question has been produced by an alteration of a face presentation, and even this feature I propose to discuss very sparingly. Such occipito-posterior positions should never, I believe, be left to Nature, because when the well-known tendency to extension which is characteristic of occipito-posterior labor has once produced a face presentation it can usually be relied upon to reproduce it, if left to itself. The choice between the application of the forceps to the posterior occiput, the rotation of the occiput to the front, when it may be left to Nature or treated by forceps, and the performance of a version, will then rest upon the peculiarities of the individual case and upon the bias of the individual operator, my own preference being for a rotation of the occiput to the front and the application of forceps for a first choice, and the operation of version for a second.

I believe, then, that when the case is operated on early, an anterior position of the chin is best treated by a manual restoration of the vertex and a subsequent operative delivery; but, since every operator must expect to be called to neglected cases, my paper would be incomplete if I omitted to discuss their treatment.

Treatment of Neglected Cases.—Such cases are likely to be complicated by one or both of two unpleasant factors—marked

moulding of the head and a tonic condition of the uterine muscle. If the head has been delayed at the superior strait until it has become thoroughly moulded to the configuration characteristic of face labor, the restoration of the vertex is likely to be difficult, while, even if it is accomplished, a re-extension is almost certain to occur so soon as the forceps is applied. This maneuvre should therefore be ruled out for such cases. The rapid alteration of the configuration of a much-moulded face presentation, which is likely to occur during the extraction of the after-coming head after version, exposes the child to great danger of death from intracranial hemorrhage; but this danger is, in my experience, less than that which attends the application of high forceps to the face, and I therefore think that version, after such flexion as can be accomplished, is the operation of preference for much-moulded heads.

When both manual flexion and version are rendered impossible or dangerous by the existence of constriction rings in the uterus or by a thinning of the lower uterine segment, the application of forceps to the face is justifiable in anterior positions of the chin, and is occasionally successful in saving the child. The fetal mortality in delayed cases is, however, very great, and, as has been said, the advisability of avoiding it is the chief argument for an early operation.

Mento-posterior Positions.—The prognosis of posterior positions of the chin under the care of Nature is so nearly always unfavorable that I think it is the best plan to subject all posterior positions to an operative delivery; and there can be, in my opinion, no question but that it is an inevitable corollary to this principle that the operation should be performed so soon as the membranes have ruptured and while all the conditions are still favorable.

If the cervix is extremely rigid we must do an external or bipolar version; but if it is already dilated, or if its condition renders a manual dilatation advisable, we have at our disposal four operations—the application of forceps to the posterior position of the chin, rotation of the chin to the front and the application of forceps, immediate version, and the restoration of the vertex by flexion.

There can be no question of choice between these operations. The application of forceps to posterior positions of the face is never justifiable, on account of the mechanical difficulties which

follow the entrance of a posterior chin into the pelvis; the rotation of the chin, and the application of forceps to the face anterior, should be reserved for a last resource; and version, as before, should be preceded by flexion; while, on the other hand, in posterior positions of the chin, the restoration of the vertex by flexion results in the production of the favorable occipito-anterior position of the head, so that this is, in uncomplicated cases, the operation of choice beyond question.

When an unmoulded head has been once placed in a well-flexed anterior position of the vertex there is comparatively little likelihood of its re-extension, and the case may usually be left to Nature. The patient should be allowed to recover from her anesthesia, and the head should be held in position by external pressure till engagement of the vertex results. Though natural delivery will then frequently result, such cases must nevertheless be watched carefully till the head has fairly passed the brim, and if re-extension does occur the patient should be again anesthetized, the head reflexed and delivered by forceps. If for any reason the forceps operation fails, version can, of course, be resorted to, but will seldom be necessary.

Treatment of Neglected Cases.—The likelihood of re-extension in anterior positions of the occiput is comparatively so small that flexion and the application of forceps may be resorted to in posterior positions of the chin whenever the moulding of the head is anything but very excessive; much-moulded heads should never, however, be left to Nature after their flexion, but should always be delivered by forceps immediately after the restoration of the vertex. Very excessively moulded heads are so likely to re-extend during the forceps extraction that they are best delivered by version, unless the condition of the uterus rules out this operation.

When both flexion and version are contraindicated a manual rotation of the chin to the front, and the application of the forceps to the face as such, is the only remaining procedure. That even this operation may occasionally be carried out with safety to the child I know from a case which I once had the pleasure of seeing with Dr. C. M. Green, in which, by the successful performance of this maneuvre, he succeeded in extracting a living child in a long-neglected hospital case in which both manual flexion and version were rendered impossible by the existence of a small fibroid in the lower uterine segment and a tight

annular constriction of the uterus about the chest of the child and just above the occiput.

The treatment of mento-posterior positions which remain persistently posterior after their entrance into the pelvis as such, is an interesting branch of the subject which I am compelled to pass over, not only from lack of time for its consideration, but because I have had no personal experience in such cases and am consequently ill-qualified to discuss them.

Craniotomy *vs.* Abdominal Delivery.—When, in any case of face presentation, all of the maneuvres which have been already recommended are found to be impossible, the vitality of the child will almost invariably have been seriously if not hopelessly compromised; and the mortality of abdominal operations performed at such a stage of labor has always been so great that the risk to the mother is greater than we are justified in subjecting her to for the sake of an exhausted fetus. The disgusting alternative of craniotomy to the living fetus is then the only operation indicated; but it may be added that this can only be forced upon us as the result of bad obstetrics.

In Summary.—The conclusions by which my own management of face cases is directed, and which I wish to present to you for discussion, are as follows: When a face presentation is detected before the engagement of the face, and before rupture of the membranes occurs, there is always reason to hope for a spontaneous restoration of flexion. The obstetrician should therefore confine himself to the adoption of postural treatment and gentle external manipulations till the occurrence of engagement or the rupture of the membranes renders a spontaneous flexion improbable.

When the membranes rupture early an external or bipolar version should be at once performed, in any case in which the condition of the cervix renders a manual dilatation of the os dangerous; but in ordinary conditions of the cervix a manual dilatation should be undertaken immediately after the rupture of the membranes, the head should be flexed by the hand, and the subsequent treatment should be operative, but its details should be dictated by the position.

When the membranes persist until the cervix is completely dilated an anterior position of the chin should be left to Nature, so long as its progress is rapid and the fetal heart is steady; but when any irregularity of the fetal pulse, or an even moderate

delay at the brim, has been detected, the patient should be anesthetized and the head flexed.

The posterior position of the occiput so produced should not be left to Nature, but should be either treated by version or preferably rotated to the front by the hand; it may then be left to Nature or treated by forceps.

Posterior positions of the chin should never be left to Nature, even though the os has been completely dilated by the membranes, but should always, in such cases, be subjected to an immediate manual flexion.

The anterior position of the vertex which results may then be left to Nature or may be delivered by forceps.

In neglected cases in which manual flexion is contraindicated, version should be chosen, if it is practicable, whatever the position of the chin; if version is contraindicated such cases should be treated by the immediate application of forceps to the face as such, but in posterior positions of the chin this operation should always be preceded by a rotation of the chin to the front.

In cases in which the face presentation is due to some other mechanical obstruction the treatment should be determined by the latter factor.

The abdominal methods of delivery are never indicated in uncomplicated face labor.

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